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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,177

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Takatoshi Okagawa

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EXAMINER

ROBERTS, BRIAN S

ART UNIT

PAPER NUMBER

2619

NOTIFICATION DATE

DELIVERY MODE

04/14/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/666,177	<b>Applicant(s)</b> OKAGAWA ET AL.	
	<b>Examiner</b> BRIAN ROBERTS	<b>Art Unit</b> 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- Claims 1-19 remain pending.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 16 and 17 are directed to neither a manufacture or a machine, but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "A computer-readable storage

medium encoded with a data structure" is not supported by the original disclosure and therefore is considered new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 15 and 16

Claim 15 and 16 are indefinite because its unclear whether the claim are directed to a computer readable medium encoded with a data structure which is a manufacture, or are directed to a communication system comprising a source router, destination router, destination mobile terminal and source mobile terminal which is a machine. The claims must be directed towards either a manufacture or a machine.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 and 17-19 are rejected under 35 U.S.C. 102(e).as being anticipated by Okagawa et al. (US 6958988)

- In reference to claim 1 and 7

In Figure 1, Okagawa et al. teaches a mobile communication control system and method that includes a location information server (100) and a plurality of edge nodes, wherein the location information server (100) includes

- An address managers configured to manage a IP address of a destination mobile station (first address of a destination mobile station) associated with an address of a destination edge node supervising the destination mobile station (second address of the destination mobile station) (column 6 line 66 - column 7 line 15)
- An instructor configured to instruct a source edge node connected to a source mobile station via a radio circuit and a destination edge node connected to the destination mobile station via a radio circuit to store the IP address of the destination mobile station (first address of a destination mobile station) associated with the address of the edge node supervising the destination mobile station (second address of the destination mobile station) (column 6 line 66 - column 7 line 15)

wherein the source edge node includes:

- A first address memory configured to store the IP address of the destination mobile station (first address of a destination mobile station), in accordance

with the instruction from the location information server (100), (column 9 lines 42- column 10 line 39)

- An address converter configured to convert the IP address of the destination mobile station (first address of a destination mobile station) which is included in a packet received from the source mobile station as a destination address, to the address of the edge node supervising the destination mobile station (second address of the destination mobile station) which is associated with the IP address of the destination mobile station (first address of a destination mobile station) in the first address memory (column 9 lines 42 - column 10 line 39)
- A routing processor configured to route the received packet to the destination edge node connected to the destination mobile station via a radio circuit, in accordance with the second address of the destination mobile station (column 9 lines 42 - column 10 line 39)

wherein the destination edge node comprises:

- A second address memory configured to store the IP address of the destination mobile station (first address of a destination mobile station) (column 9 lines 42 - column 10 line 39)
- An address converter configured to convert the address of the edge node supervising the destination mobile station (second address of the destination mobile station) which is included in the received packet as a destination address, to the IP address of the destination mobile station (first address of a

destination mobile station) which is associated with the second address of the destination mobile station in the second address memory (column 9 lines 42 - column 10 line 39)

- A packet transferring processor configured to transfer the received packet to the destination mobile station, in accordance with the first address of the destination mobile station (column 9 lines 42 - column 10 line 39)

- In reference to claim 2

In Figure 6, Okagawa et al. further teaches the destination edge node further includes a selection notifier configured to select the second address of the destination mobile station which is associated with the first address of the destination mobile station in the second memory, and to notify the selected second address of the destination mobile station to the location information server (100), when the destination mobile station moves into a predetermined area and wherein the address manager of the location information server (100) is configured to manage the notified second address of the destination mobile station associated with the first address of the destination mobile station. (column 9 lines 42 - column 10 line 39)

- In reference to claim 3

In Figure 6, Okagawa et al. further teaches the source edge node further includes an inquirer configured to inquire as to the second address of the destination mobile station of the location information server (100), when the first address memory

does not store the second address of the destination mobile station associated with the first address of the destination mobile station which is included in the packet received from the source mobile station as a destination address; and the instructor of the location information server (100) is configured to instruct the source edge node to store the first address of the destination, mobile station associated with the second address of the destination mobile station, in accordance with the inquiry from the source edge node. (column 9 lines 42 - column 10 line 39)

- In reference to claim 4, 9

In Figure 6, Okagawa et al. further teaches the address manager of the location information server (100) is configured to update the first address of the destination mobile station and the second address of the destination mobile station which are associated with each other, in accordance with a movement of the destination mobile station. (column 9 lines • 42 - column 10 line 39)

- In reference to claim 5, 10

In Figure 1, Okagawa et al. further teaches the instructor of the location information server (100) is configured to instruct a edge node which is not in a route of the packet from the source mobile station to the destination mobile station, to delete the managed first address of the, destination mobile station and the managed second address of the destination mobile station. (column 6 line 66 - column 7 line 15)



- In reference to claim 6, 12, 14

In Figure 3, Okagawa et al. further teaches the address converter of the source edge node or the destination edge node is configured to distinguish the first address of the destination mobile station from the second address of the destination mobile station, in accordance with at least one decision bit in the packet. (column 7 lines 21-37)

- In reference to claim 8

In Figure 1, Okagawa et al. teaches a location information server (100) used in a mobile communication network for transferring a packet from a source mobile station to a destination mobile station via a plurality of edge nodes, the location information server (100) includes

- An address managers configured to manage a IP address of a destination mobile station (first address of a destination mobile station) associated with an address of a destination edge node supervising the destination mobile station (second address of the destination mobile station) (column 6 line 66 - column 7 line 15)
- An instructor configured to instruct a source edge node connected to a source mobile station via a radio circuit and a destination edge node connected to the destination mobile station via a radio circuit to store the IP address of the destination mobile station (first address of a destination mobile station) associated with the address of the edge node supervising the destination

mobile station (second address of the destination mobile station) (column 6 line 66 - column 7 line 15)

- In reference to claim 11

In Figure 1, Okagawa et al. teaches an edge node connected to a source mobile station that includes:

- An inquirer configured to inquire as to an address of the edge node supervising the destination mobile station (second address of the destination mobile station) of a location information server (100), when a first address memory does not store the second address of the destination mobile station associated with an IP address of the destination mobile station (first address of a destination mobile station) which is included in a packet received from the source mobile station as a destination address (column 9 lines 42 - column 10 line 39)
- A first address memory configured to store the IP address of the destination mobile station (first address of a destination mobile station), in accordance with the instruction from the location information server (100) (column 9 lines 42- column 10 line 39)
- An address converter configured to convert the IP address of the destination mobile station (first address of a destination mobile station) which is included in a packet received from the source mobile station as a destination address, to the address of the edge node supervising the destination mobile station

- (second address of the destination mobile station) which is associated with the IP address of the destination mobile station (first address of a destination mobile station) in the first address memory (column 9 lines 42 - column 10 line 39)
- A routing processor configured to route the received packet to a destination edge node connected to the destination mobile station via a radio circuit, in accordance with the second address of the destination mobile station (column 9 lines 42 - column 10 line 39)
- In reference to claim 13

In Figure 1, Okagawa et al. teaches an edge node connected to a destination mobile station includes

- a selection notifier configured to select the address of the edge node supervising the destination mobile station (second address of the destination mobile station) which is associated with the IP address of the destination mobile station (first address of a destination mobile station) in the second memory, and to notify the selected second address of the destination mobile station to the location information server (100), when the destination mobile station moves into a predetermined area and wherein the address manager of the location information server (100) manages the notified second address of the destination mobile station associated with the IP address of the

- destination mobile station (first address of a destination mobile station)  
(column 9 lines 42 - column 10 line 39)
- A second address memory configured to store the IP address of the destination mobile station (first address of a destination mobile station)  
(column 9 lines 42 - column 10 line 39)
  - An address converter configured to convert the address of the edge node supervising the destination mobile station (second address of the destination mobile station) which is included in the received packet as a destination address, to the IP address of the destination mobile station (first address of a destination mobile station) which is associated with the second address of the destination mobile station in the second address memory (column 9 lines 42 - column 10 line 39)
  - A packet transferring processor configured to transfer the received packet to, the destination mobile station, in accordance with the first address of the destination mobile station (column 9 lines 42 - column 10 line 39)

- In reference to claim 17

In Figure 1, Okagawa et al. further teaches the address converter of the source edge node is configured to convert a first address of the source mobile station which is included in a packet received from the source mobile station as a source address, to a second address of the source mobile station which is associated with the first address of the source mobile station; and the address converter of the destination edge node is

Art Unit: 2619

configured to convert the second address of the source mobile station which is included in the received packet as a source address, to the first address of the source mobile station which is associated with the second address of the source mobile station.

(column 9 lines 42 - column 10 line 39)

- In reference to claim 18

In Figure 1, Okagawa et al. further teaches that the address converter is configured to convert a first address of the source mobile station which is included in the packet received from the source mobile station as a source address, to a second address of the source mobile station which is associated with the first address of the source mobile station. (column 9 lines 42 - column 10 line 39)

- In reference to claim 19

In Figure 1, Okagawa et al. further teaches that address converter is configured to convert a second address of the source mobile station which is included in a received packet as a source address, to a first address of the source mobile station which is associated with the second address of the destination mobile station. (column 9 lines 42 - column 10 line 39)

### ***Response to Arguments***

Applicant's arguments filed 02/01/2008 have been fully considered but they are not persuasive.

- In the Remarks on pg. 17 of the Amendment, the Applicant contends Okagawa fails to disclose or suggest an address converter configured to convert the first address of the destination mobile terminal which is included in a packet received from the source mobile terminal as a destination address, to the second address of the destination mobile terminal which is associated with the first address of the destination mobile terminal in the first address memory, as defined in Claim 1.
- The Examiner respectfully disagrees. The limitations of claim 1 do not require that the first address is deleted and replaced with a second address. The limitations of claim 1 require that the first address utilized to route the packet is converted to a second address utilized to route the packet. Okagawa meets the above limitations of claim 1 because Okagawa describes that gate node 102 *encapsulates* the received packet for the mobile station 109 into the packet for the edge node 105. Therefore, in Okagawa, while the packet to which the IP address of the edge node 105 is added still includes the IP address of the destination mobile station 109, the first address utilized to route the packet is converted to a second address utilized to route the packet.
- In the Remarks on page 17 of the Amendment, the Applicant contends that Okagawa fails to disclose or suggest an address converter configured to convert the second address of the destination mobile terminal which is included in the received packet as a destination address, to the first address

of the destination mobile terminal which is associated with the second address of the destination mobile terminal in the second address memory, as defined in Claim 1.

- The Examiner respectfully disagrees. The limitations of claim 1 do not require that the second address is deleted and replaced with a first address. The limitations of claim 1 require that the second address utilized to route the packet is converted to a first address utilized to route the packet. Okagawa meets the above limitations of claim 1 because Okagawa describes that edge node 105 *extracts* the encapsulated packet for the mobile station 109.

Therefore, in Okagawa, while the extracted IP address of mobile station 109 was already in the packet received at edge node 105, the second address utilized to route the packet is converted to a first address utilized to route the packet

- In the Remarks on page 18 of the Amendment, the Applicant contends that Okagawa fails to disclose or suggest an instructor configured to instruct a source router connected to a source mobile terminal via a radio circuit and a destination router connected to the destination mobile terminal via a radio circuit to store the first address of the destination mobile terminal associated with the second address of the destination mobile terminal, as defined by Claim 1.

- The Examiner respectfully disagrees. The location information server (100) does instruct edge node 105 (which acts as a destination router) to store the IP address of mobile station 109 which is associated with the address of edge node 105 during handover as described in column 9 line 42 - column 10 line 39.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN ROBERTS whose telephone number is (571)272-3095. The examiner can normally be reached on M-F 10:00-7:30.



Art Unit: 2619

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR  
04/07/2008

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4/9/08